THE PACIFIC COAST ARCHITECT

A·MONTHLY·JOURNAL·FOR·THE ARCHITECTURAL · INTERESTS OF·THE·PACIFIC·COAST

OFFICE OF PUBLICATION
PORTLAND OREGON

·FIFTEEN·CENTS·A·COPY· · DOLLAR·AND·A·HALF·A·YEAR·

VOLUME 1 APRIL, 1911 NUMBER 1

Flat Slab Construction

FOR WAREHOUSES, FACTORIES AND HOTELS. THE TWO LARGEST CONCRETE BUILDINGS NOW BEING ERECTED IN PORTLAND USE THIS DESIGN

HAVEMEYER BARS
COLUMN SPIRALS
BEAM WIDTHS

ALL CLASSES OF CONCRETE
REINFORCEMENT
DESIGNS

WRITE US FOR
ESTIMATES OF COST OF
REINFORCED
CONCRETE
CONSTRUCTION

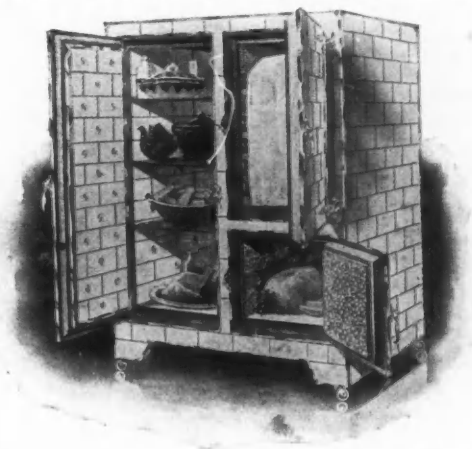
Concrete Steel Products Co., *Engineers and Manufacturers,* Chicago

Western Office: 512 Lewis Building, Portland. Agencies in All Coast Cities

The Brunswick-Balke Collender Co.

Manufacturers of

The Hickes Oak and Tile Refrigerators, Billiard Tables for the Home, Billiard and Pool Table Supplies, Bar Fixtures, Bowling Alleys and Supplies



Special Work Solicited at the Pacific Coast Offices — Portland, Oregon, Seattle and Spokane, Wash.

Western Refining Company

MANUFACTURERS OF

Beaver Damp-Proof Paint
Beaver Water-Proof Pitch

"Wear-Best" Creosote Shingle Stain
Black Paints Oils and Varnishes

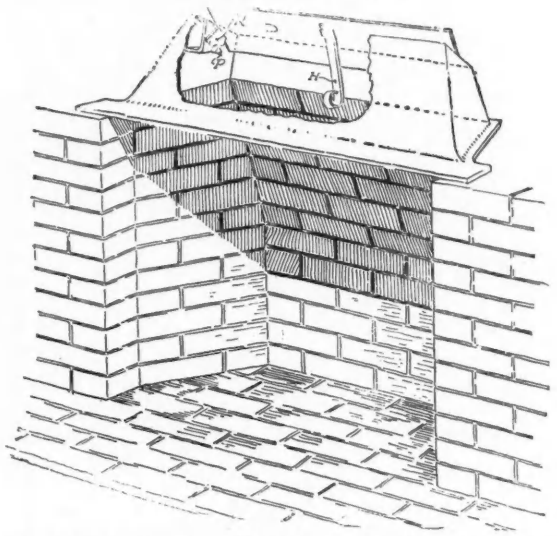
Get Our Prices—We can save you Money on Our Material

ALL GOODS SOLD UNDER A GUARANTEE

Office and Plant, 351 East Oak Street, Portland, Oregon

The Covert Cast Iron Fire Place Throat and Damper

It Simplifies the Mason's Work, Saves Time in Construction and Money for the Owner



It provides a damper to control the draft and ventilation, and also prevent down drafts, which carry with them particles of soot, causing damage to carpets, rugs, floors, furniture and work for the housekeeper.

Sizes 30," 36," 42," and 48". Larger to order

P. L. Cherry Co., Inc., Agents for Oregon
306-307-308 Lumber Exchange Building, Portland, Oregon

"Elbram" Fancy Brick

Is an Oregon Product
Made at St. Johns

We furnish it in any shade and in any color

"Elbram" Face Brick

Has the same distinctiveness as our brick and can be made to order in any shape, size, color or design

Pacific Brick & Marble Co.

HEILIG THEATRE BUILDING

C. L. Burton, President and Manager Phone Main 5299

The Lithic Manufacturing Co.

Manufacturers of

SCAGLIOLA AND SANITARY
PLASTIC FLOORS

Selling Agents for Raecolith Sanitary Flooring

"The floor that stands the test of time"

191 SEVENTH STREET Phone Main 5299

"Hello, Bill" will be the password in Portland in July, 1912, when the Grand Lodge of Elks comes for the Annual Reunion. Portland is practically assured of the Grand Lodge session which ranks, as a drawing card, with the great political conventions. Low railroad rates will be in effect and 120,000 visitors are expected to come to the Pacific Northwest with the Elks.

The Pacific Coast Architect

VOLUME 1 PORTLAND, OREGON, APRIL 1911 NUMBER 1

COAST PUBLISHING COMPANY, PUBLISHERS

F. O. THOMSON, EDITOR L. J. FLYNN, ADVERTISING MANAGER

PUBLISHED ON THE FIFTEENTH OF EACH MONTH AT 803 LEWIS BLDG., PORTLAND, OREGON

Subscription in the United States and possessions
$1.50 a Year. Foreign and Canadian $2.50 a Year

Changes in, or copy for new advertisements must reach the office of publication not later than the Twentieth of the month preceding issue.

The Editor will be pleased to consider contributions of interest to the readers of this publication. When payment for same is desired this fact should be stated. Self addressed envelopes must accompany all such contributions.

ADVERTISING RATES ON APPLICATION TELEPHONE MAIN 5121

FOREWORD

The announcement of the birth of a new publication is, quite naturally, received with a considerable degree of interest in any community. The interest and good wishes for the success of the PACIFIC COAST ARCHITECT have quite overwhelmed the publishers and we wish to express our thanks to our many friends.

Precedent has placed upon our shoulders the obligation to tell you, in this first issue, something of our hopes and aims for the magazine. However, though we might use much space and take much of your time, we vastly prefer to have the coming issues speak for us.

Tersely, we believe there is an unoccupied field for a high class architectural publication representing the Pacific Coast. We believe the PACIFIC COAST ARCHITECT will fill that void. The journal will be conducted along the broadest reciprocal lines consistent with good business policy. We shall show only the best examples of the craft, constructed along the Coast. The subscription price is within the reach of all who appreciate a good publication of its kind and an effort will be made to interest the layman as well as the craftsman.

We commend this issue to your consideration with the assurance that your criticisms and suggestions will at all times be gratefully received. How do you like the first issue of the PACIFIC COAST ARCHITECT?

The Builders Exchange, a much needed organization

As we are about to go to press strenuous efforts are being made for the organization of a builders' exchange and, we hope, by the time this issue reaches you the organization will have been completed by the adoption of a constitution and by-laws.

According to the sponsors of the new organization, its purpose will be the elimination of dishonest contractors and the elevation of the building industry to a legitimate basis. The exchange will be patterned after that in Frisco and it is planned to have regular club rooms which will appeal to the social as well as the business side.

There is no question but that an organization of this kind would prove of inestimable value not only to the local but as well to the building interests of the entire State. It is only through an organization of this kind that the evident abuses from which the trade suffers can be promptly and efficiently eliminated.

With the architects, the contractors and the material supply men in a concrete organization there will be no more "abuses." The following committee of twelve have the completion of the organization in charge:

Fred W. Wagner, representing the tilesetters and dealers; Andrew Freiberg, master masons; Thomas Muir, master carpenters; J. Reudy, master plumbers; G. Weaverson, master sheet and metalworkers; J. O'Hara, master plasterers; A. W. Parks, master electricians; E. E. Gilmer and R. A. Hume, dealers in building supplies; E. C. Comstock, master ornamental ironworkers; M. J. Walsh, dealer in lights and fixtures, and L. F. Danforth, master painters.

Homes Built "While You Wait"

According to an English publication, the cry of "back to the land" is being as persistently voiced "across the pond" as in our own country. The problem which has been of most importance is the suitable housing accommodations at a cost low enough to permit the rentals being fixed at a figure in ratio with the earnings of the tenants.

At an exhibition to be held in the Royal Agricultural Hall next month a development association will exhibit a model cottage which will prove of unique interest and which, it is said, will mark the commencement of a new era in the planning and erection of small residences.

The cottage consists of a steel frame, with concrete walls, and differs from some recent attempts made in that it is most artistically designed by E. C. P. Monson, F. R. S., a well-known English architect.

Arrangements are in hand for having a series of such cottage practically built in the factory, and transported to any part of the country in sectional parts. The designs and all fittings can be standardized and supplied

in large quantities, and it will be readily understood that the cost of production will be thereby considerably cheapened.

The new method of construction will be found in every way far superior to the ordinary style of brick building, inasmuch as the cottages will be damp, fire, and vermin proof, and certainly far more sanitary, seeing that there will be no useless cavities in which bad air may congregate, or disease germs infest.

Although only seven days will be allowed for erection the cottage will in that short space of time be erected, finished and furnished complete, ready for habitation, in every way as if intended for permanent occupation, and it will certainly form one of the chief attractions of the exhibition.

A State Architect

Oregon now has a "State Architect," who has been appointed by the State Board to take charge of the construction of public buildings. W. C. Knighton, of Portland, has been chosen for the position.

Under the new system the State Architect will receive a salary of $4500 a year and will have charge of all the architectural work. He will devote his entire time to the work for the State and it is understood will take up his new office immediately.

According to estimates of State Treasurer Kay, if the State should hire an architect on the old basis to do the work of preparing plans and to supervise the construction of the proposed building for the Eastern Oregon Branch Insane Hospital, at Pendleton, the services for that work would cost the State $20,000. If the architect had to prepare only the plans the cost would be $12,000.

In consequence, the board sees an opportunity for an enormous saving in this one item alone, aside from the buildings that are to be constructed at the State School for the Feeble-Minded, the Reform School, the State Capitol addition and other public work of this nature.

Lighting Helps

The frequent blackening which occurs on gas mantles of the Welsbach type can oftentimes be corrected by the use of common table salt. Turn the light low and sprinkle lightly from a salt-shaker. Then let the light burn brightly for a few minutes and much of the black will have disappeared. Repeat this process until the surface is entirely clear. If the brass of the burner is visible clean off all salt grains, as they have a corrosive action and are apt to stain. This simple remedy can make a considerable saving in mantles.

The Palladium, the new music hall, built on the site of the old Hengler's circus in London, is said to be a wonderful place of its kind. Its stalls alone will seat nearly 1300. Its palm court will give tea to a thousand at once. It has a larger Royal box than any in London, a postoffice on the premises, writing rooms and tape machines. It has a Louis Quinze salon with a ceiling that "almost exactly resembles porcelain."

Careful inspection is necessary while stucco work is in progress, says a writer in the Architects' and Builders' Magazine, to see that the wire or metal lath is properly fastened and that the stucco is properly mixed of good ingredients and is applied in sufficient thickness. Usually two-coat work totals in thickness not much over one-half inch. This runs close to the limit of safety and a one-inch coating is sure to be far more satisfactory, lasting and durable. The writer calls to mind a house on Long Island where the wire lath was fastened directly to the studding and a stucco rich in cement troweled on to a thickness of about one inch on the face squeezed through to the back, forming a bond about one-quarter inch in thickness. This house has stood for years. The walls are uncracked, because the foundations were good, and the house has always been dry inside and easily heated in winter.

The curved bridges of Japan are of three kinds—first, those known as spectacle bridges, with an arch in the center, suggesting a pair of spectacles; second, the camel back bridges, which go up very high indeed; third, the ordinary one arch, semi-circular bridges. The reason the Japanese so often have curved bridges is because until modern times they could not build them flat, and even today there is no keystone to the Japanese arches. A great many of two classes of bridges—the camel back and the high curved bridges—are found in the palace grounds at Pekin, in China.

A new method of drying humid walls, says the *Slate Trade Gazette*, has been devised by a Belgian architect. It consists in embedding inclined porous tubes in the walls, the direction of the tubes in plan being perpendicular to the wall surfaces. By capillary action these tubes continually absorb moisture from the wall, for the air which they contain, being in the same hygrometric condition as that of the interior of the building, is relatively dry, and readily takes up the moisture. The act of vaporizing ensuing therefore reduces the temperature of the air passing from the tube and being constantly replaced by dryer and warmer air. The tubes are placed sufficiently close together to leave no intervals between their zones of influence. In new buildings the places for the tubes are left, but the tubes themselves are not inserted until the mortar has set. It is stated that the method has been tried at Versailles.

Organization is now being perfected for the Ninth International Congress of Architects to be held at Rome next year in connection with the Jubilee Exhibition. Among questions to come up for discussion will be: (1) Armored cement, as used in various countries, and the possibilities of its being utilized for large buildings of a monumental character, having due regard to the technical and decorative aspects of the question. (2) Rules governing international competitions in architecture. (3) Regulations and plans relating to buildings and artistic considerations in towns. (4) Professional instruction and diplomas for architects. (5) Duties and privileges of architects in relation to their clients. (6) Practice of architects of various nationalities.

Some Local Tendencies in the Furnishing of Homes

BY BERNARD C. JAKWAY.

Popular interest in the home and its furnishings has increased enormously during the past few years, doubtless as a result of the general desire for a fuller comelier mode of living which is everywhere manifest. It has come to be recognized that a tastefully and comfortably furnished home is the essential element in any scheme of well-ordered living. Experience, moreover, has shown that such houses do not merely happen, rather that special knowledge and educated taste are required in this creation. Hence the remarkable interest in interior decoration, which is the sum of all those processes by which a house is made beautiful and comfortable.

This fascinating subject has been much exploited. Many books upon it are published yearly, magazines are devoted to it, women's clubs discuss it, manufacturers and dealers keep it constantly in print. As a result of all this publicity the general taste has become more discriminating. Better designers are demanded in housefurnishing and more harmonious colorings. Styles formerly popular are no longer acceptable, once cherished household goods are consigned to the auction house or the poor relative.

In this brief summary of local practice and tendencies none but medium-priced houses—those costing from $2000 to $8000—are considered. It is among the owners of such houses that the increasing interest in artistic home furnishings is chiefly notable and significant.

The most obvious characteristic of a properly furnished home is simplicity, and it is in this direction that the improvement in taste has been marked. The enormous local popularity of the Mission and Craftsman style in furniture and decoration is due to their simplicity. Mission furniture, though crude and heavy, is dignified and wholly free from tawdry ornament. Craftsman, Quaint or Arts and Crafts furniture, as it is variously called, is somewhat lighter and more graceful, but almost equally severe. Its perfect simplicity of design and staunch construction make it the highest expression of the reaction against the pretentious designs, the weak curves, meaningless ornament and poor cabinet-making of the popular furniture it has so largely displaced. Quaint furniture is made of oak, usually of a nut-brown color, and harmonizes well with the stained fir in which our medium priced houses are usually finished. Such a house, when well designed, is very attractive with its plain tinted walls, beamed ceilings, paneled dining room and dignified straight-line furniture.

However, there is small doubt that the style has passed the zenith of its popularity. Thousands of just such houses have been built and furnished in Portland during the last few years. A stone thrown from any corner in our newer residence districts would be fairly sure to hit one. In this endless duplication simplicity has become monotony. We are apparently at a point where something is demanded that will conserve what has been gained in simplicity and dignity while permitting the development of a larger degree of individuality.

One present tendency in this direction is to use wall papers increasingly instead of tinted walls. Good papers are now obtainable in a variety of artistic designs and colorings undreamed of a few years ago. Portland is far behind most other cities in its appreciation of this admirable decorative material. Its growing popularity here promises much for the attractiveness and distinction of our homes.

Another tendency is to relieve the severity of the monotonously straight lines by using oak furniture based on the old Flemish and English designs. This furniture has all the strength and dignity of the Craftsman style, but is softened and embellished by a little turning, carving or cane. It is somewhat archaic in appearance, but the pieces are often beautiful and give a fine air of individuality to a room.

The best present practice, and the one most likely to become popular in the future for houses finished in fir, it to use with the tables, desks and bookcases of the quaint or Flanders styles a few simple upholstered pieces, or willow chairs with chintz or tapestry cushions, thus adding comfort, color and individuality, while preserving simplicity and restfulness.

When the architects of this sort of houses meet the furnisher half-way; when they reduce to proper width the openings which so often yawn between adjoining rooms, occasionally substitute simple cornices for the interminable beamed ceilings and eliminate the ill-conceived sideboards that too frequently disfigure their dining rooms the end of the reign of monotony will be in sight.

Painted and enameled woodwork in white, ivory or gray, will be used very much more frequently than at present in the living rooms, dining rooms and halls of medium-priced houses. This will offer a very agreeable variation from stained fir, moreover painted woodwork harmonizes with almost any wall treatment and offers the widest latitude in the choice of furniture. It is sure to extend greatly the use of mahogany furniture which is now barred from many by its lack of harmony with the woodwork. In this connection it is interesting to note that several large makers of popular priced furniture are preparing to bring out lines of solid mahogany that will cost no more than good oak. This furniture will be very simple in design, inclining in style to the Craftsman or modern European types. It will be interesting and handsome, and seems assured of a wide popularity.

In conclusion, it seems safe to say that for the better class of houses here the vogue of the Colonial is about to pass, although the intrinsic merits of the style will always ensure its popularity. The tendency is toward the reproduction of the pure eighteenth century English furniture—notably the best pieces of Chippendale, the Adams Brothers, Hepplewhite and Sheraton. The charming air of distinction and the rare beauty of line and ornament possessed by these pieces commend them to the most exacting taste, while the historic interest which attached to them in no way impairs their adaptability for common use in the homes of today. It is to be hoped that architects will elect to do more work in the Georgian style and that they will urge upon their clients its delightful qualities of beauty, variety, simplicity and repose.

Girderless Floor Design

BY VICTOR S. PERSONS.

Girderless ceilings realize the ideal construction for buildings requiring simplicity and strength as well as artistic effect, and require only a fairly regular system of column spacing. They are equally adapted to hotels, apartment houses, factories, warehouses and to all other buildings covering large ground area.

This type of construction saves at least 10 per cent of the total building height—wherever an unbroken ceiling line is required—by avoiding the furring under the beams and the consequent loss of head room; it gives a most attractive interior, and provides a 50 per cent increase in the intensity of lighting in the interior of the building; it is fireproof; it affords an economy of design and rapidity of construction impossible to any other type of building; usually it reduces the cost of the structural portion of the building by at least 20 per cent.

The unquestioned advantages of girderless slab floors have inspired many ingenious designs which dispense with beams without loss of structural efficiency. At least two of these designs have established themselves permanently.

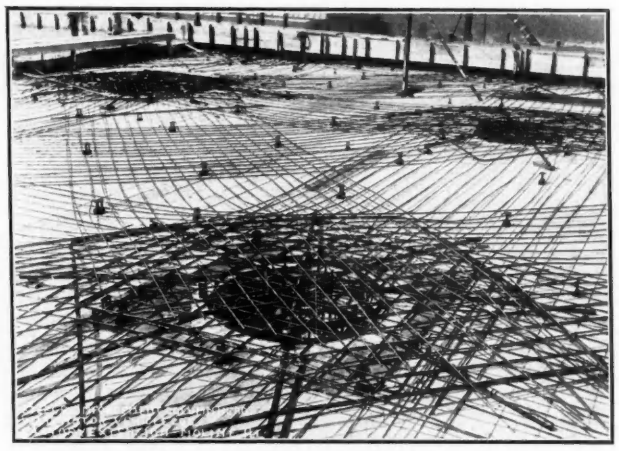
Square floor panels with two-way reinforcement, supported by broad flat beams extending normally between columns, effected the required saving in head room without departing from the accepted beam and girder method of design, but are not economical. The mushroom design with reinforcement radiating in eight directions from the supporting columns proved very satisfactory, structurally, but at first defied mathematical analysis of the stresses in the materials.

As this latter type of design established itself permanently, mathematical theories for its justification became absolutely essential and as these theories could not be deduced from any existing data, actual laboratory tests upon the completed building under full loads and excessive loads were required to provide basic facts for new

ARTISTIC INTERIOR OBTAINED BY THE UNBROKEN CEILING LINE

formulas. Tests of this character extending over several days during November, 1910, were made upon the Deere and Webber building in Minneapolis, Minn., by the Experiment Station of the University of Illinois under the direct charge of Professor A. N. Talbot. The partial results of these tests were published by all of the engineering periodicals during the months of December or January past and are too well known to require repetition here.

Eight adjoining panels were tested under full load and under about 50 per cent overload by the most careful and thorough methods known to laboratory practice today. Distortions of the materials were measured accurately to the minutest fraction of an inch and the stresses which gave rise to these distortions were then determined.



CORRECT ARRANGEMENT OF SLAB STEEL. THIS PREVENTS CRACKS AROUND THE COLUMN HEAD

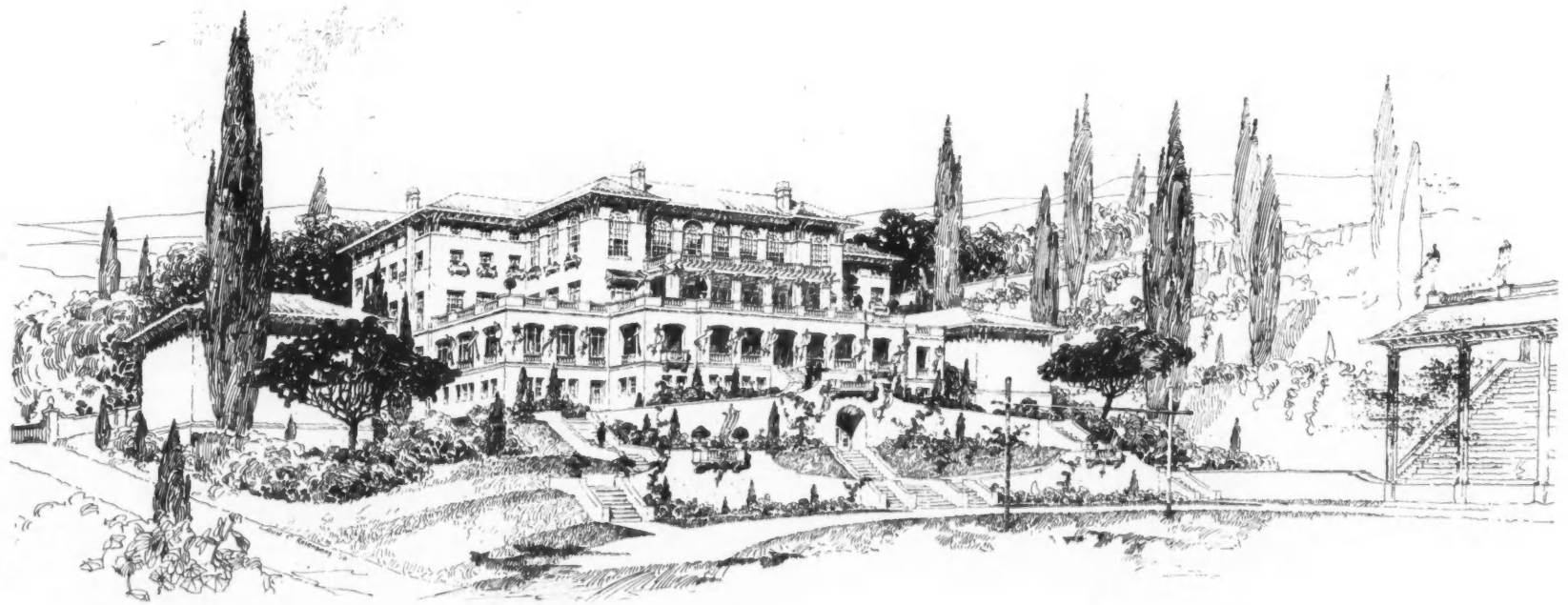
No such tests have ever been made on any other type of reinforced concrete construction; consequently, the stresses existing in materials used in flat slab construction of cantilever design are more definitely determined than the corresponding stresses in any other type of structure.

Besides determining definitely and completely the nature and amount of the stresses in materials, these tests proved conclusively that the stresses in the center of the panel under full load reach their maximum when one panel only is loaded and the minimum when all adjacent panels are loaded; that these maximum stresses are less than one-half the least values allowed by the best engineering practice; that the stresses in both the steel and the concrete are a maximum at the column head and that they attain their greatest values when the entire floor is loaded; that these stresses under full load and proper design will not exceed the most conservative values permitted in beam and girder construction; that a correct design requires the proper distribution of the slab steel between the diagonal and rectangular bands; also cracks which sometimes occur around the column head are in all probability due to an unbalanced distribution of the slab steel (that is, the width of either the diagonal band or the rectangular band is not correct and the spacing of the bars in these bands is out of proportion); that the beam and girder system of analysis is entirely inadequate for flat slab design, as the stresses determined by experiment are far less and do not correspond to those determined by this method of analysis.

The two most valuable results of these tests were the definite determination, (1) that flat slabs of cantilever type can be designed as accurately as any system of beams and girders, if not more so; (2) that the value of any flat slab design depends equally upon the sufficiency and the correct distribution of the steel about the column head

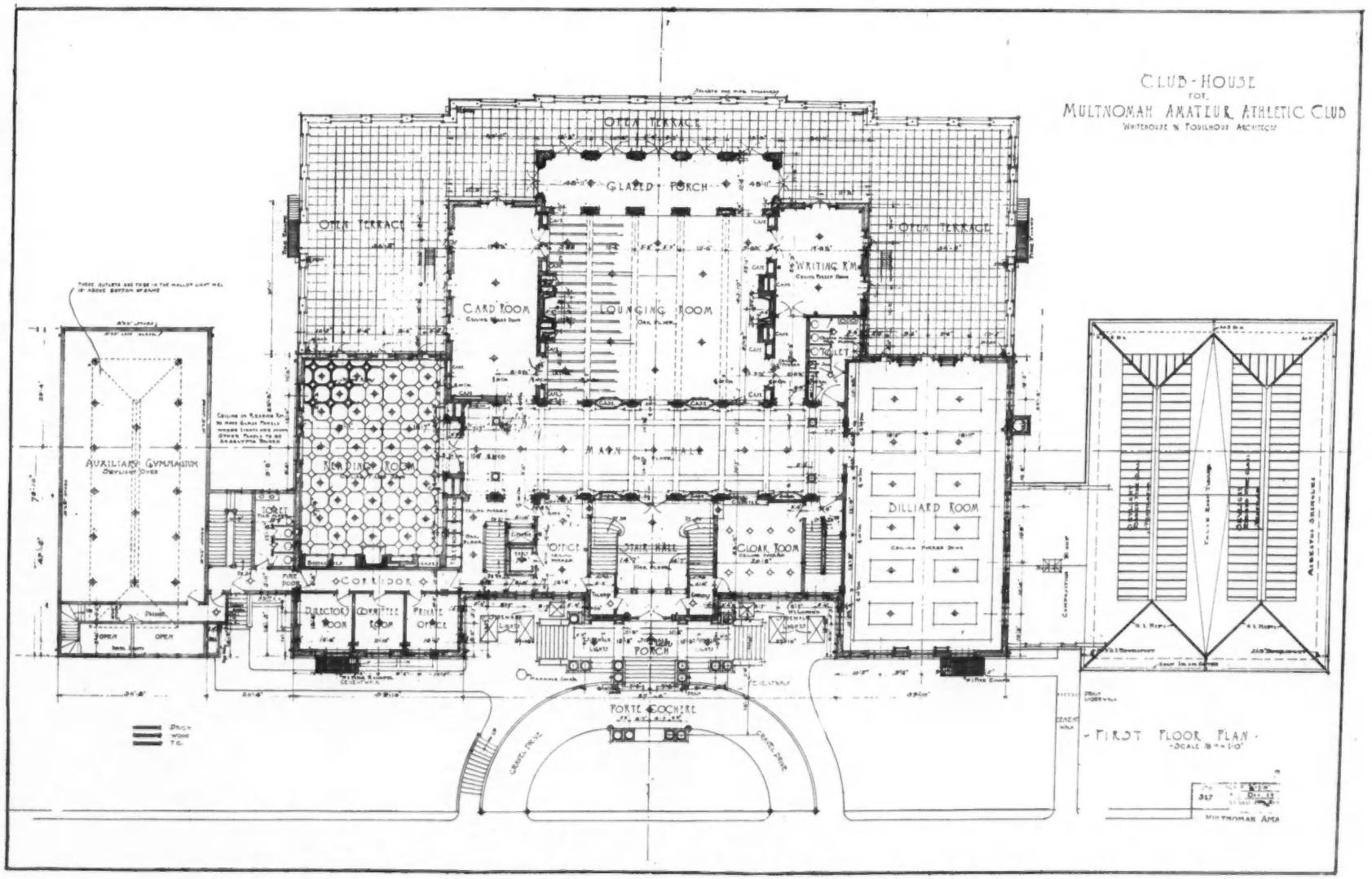
(Continued on Page 31)

MULTNOMAH AMATEUR ATHLETIC CLUB
WHITEHOUSE & FOUILHOUX, ARCHTS.



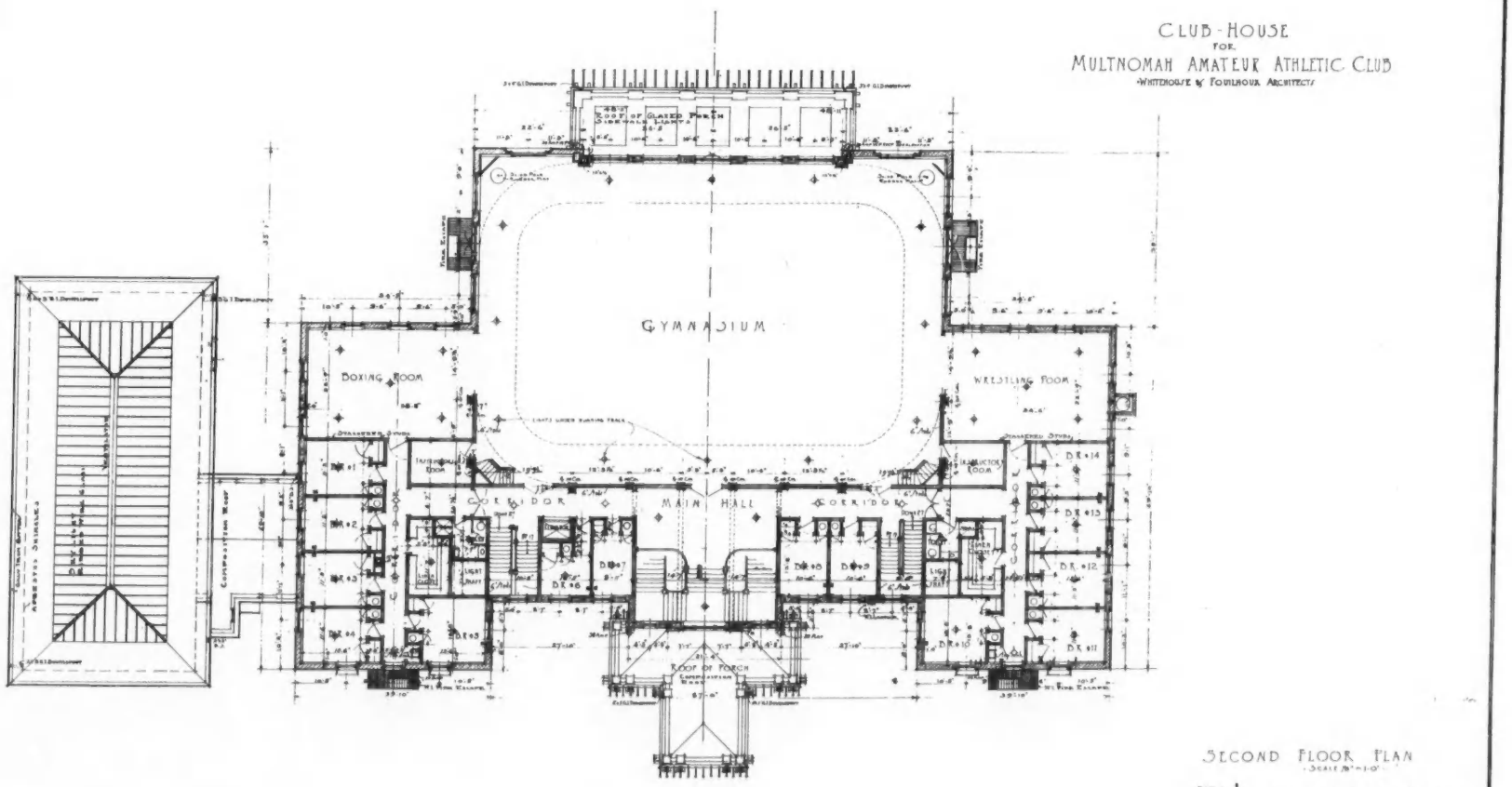
PACIFIC COAST ARCHITECT
APRIL, 1911

Club House, Multnomah Amateur Athletic Club, Portland, Oregon
Whitehouse & Fouilhoux, Architects



PACIFIC COAST ARCHITECT
APRIL, 1911

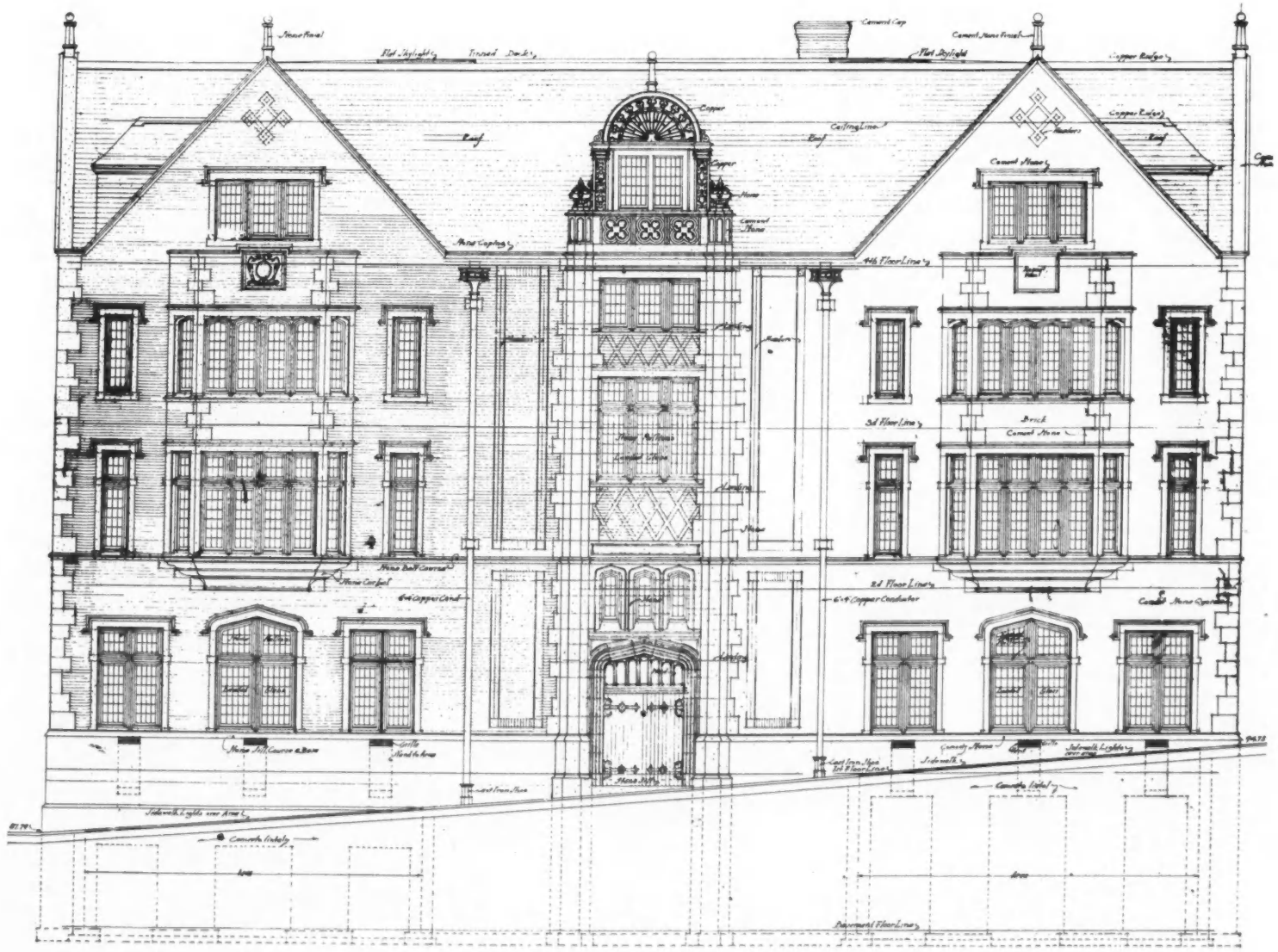
First Floor Plan, Club House, Multnomah Amateur Athletic Club
Whitehouse & Fouilhoux, Architects



PACIFIC COAST ARCHITECT
APRIL, 1911

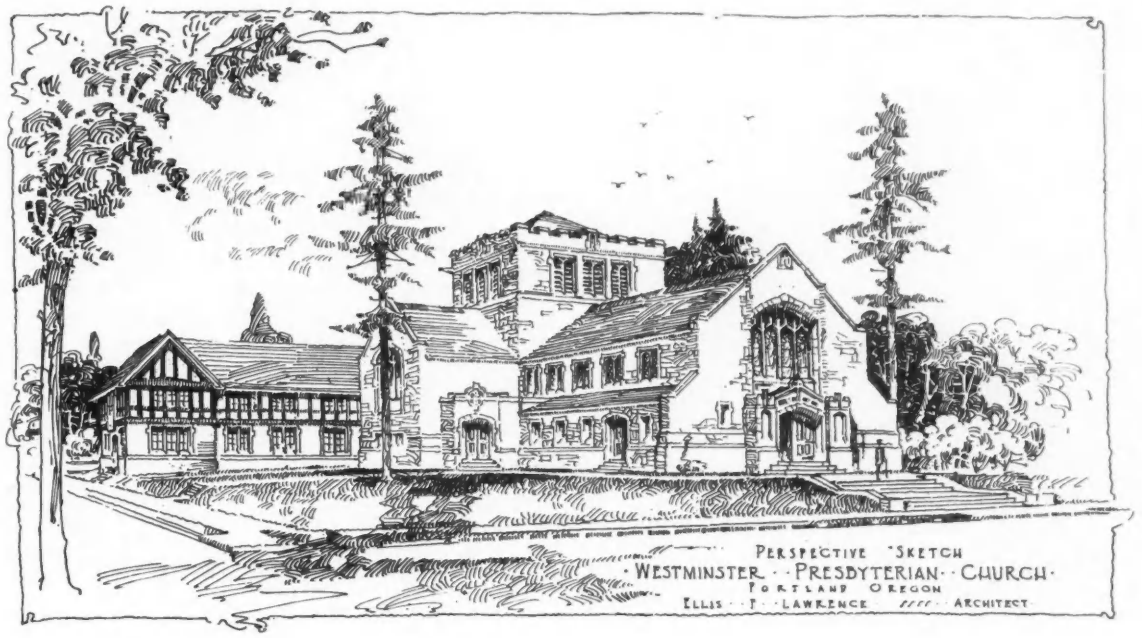
Second Floor Plan, Club House, Multnomah Amateur Athletic Club
Whitehouse & Fouilhoux, Architects

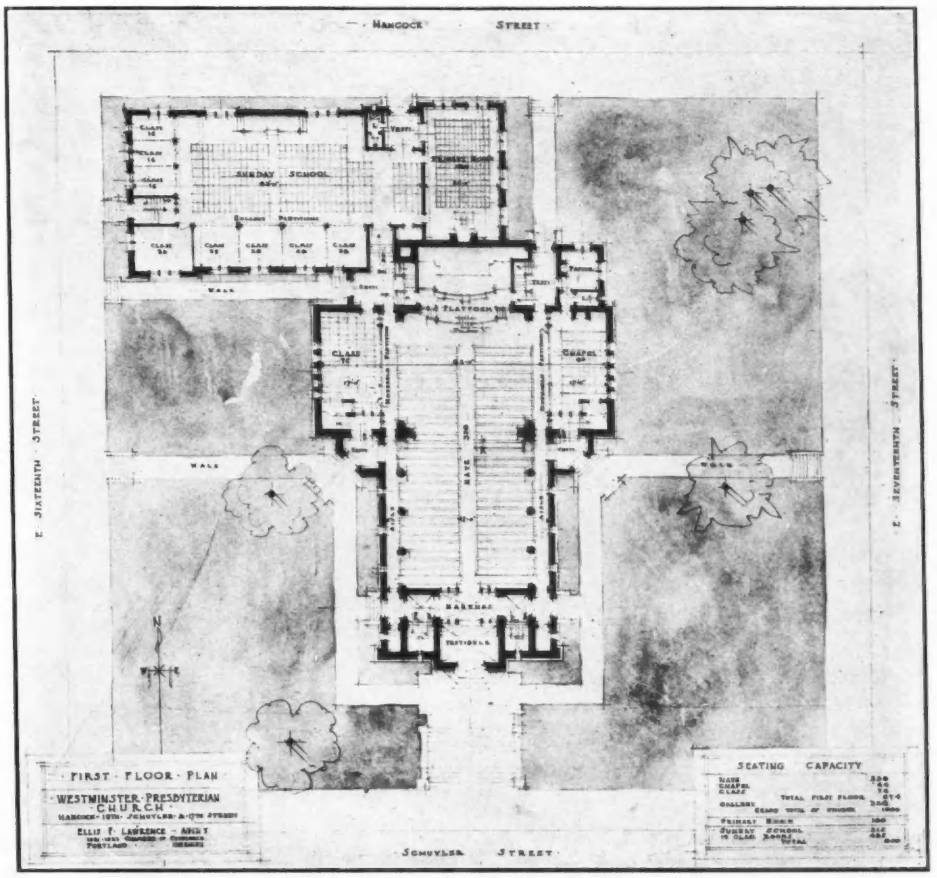
Parish House, First Presbyterian Church, Portland, Oregon
Doyle, Patterson & Beach, Architects



PACIFIC COAST ARCHITECT
APRIL, 1911

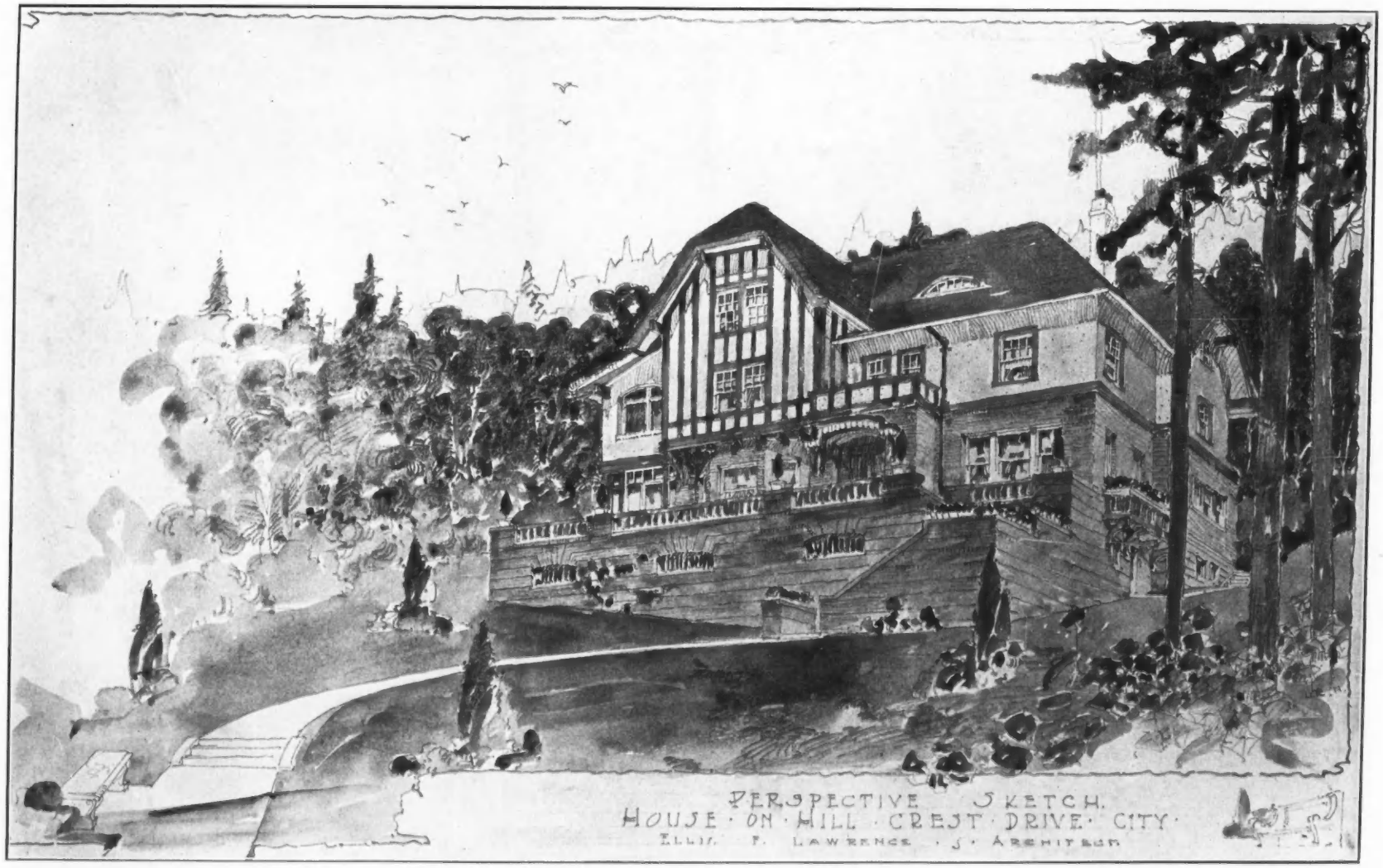
Detail, Parish House, First Presbyterian Church, Portland, Oregon
Doyle, Patterson & Beach, Architects



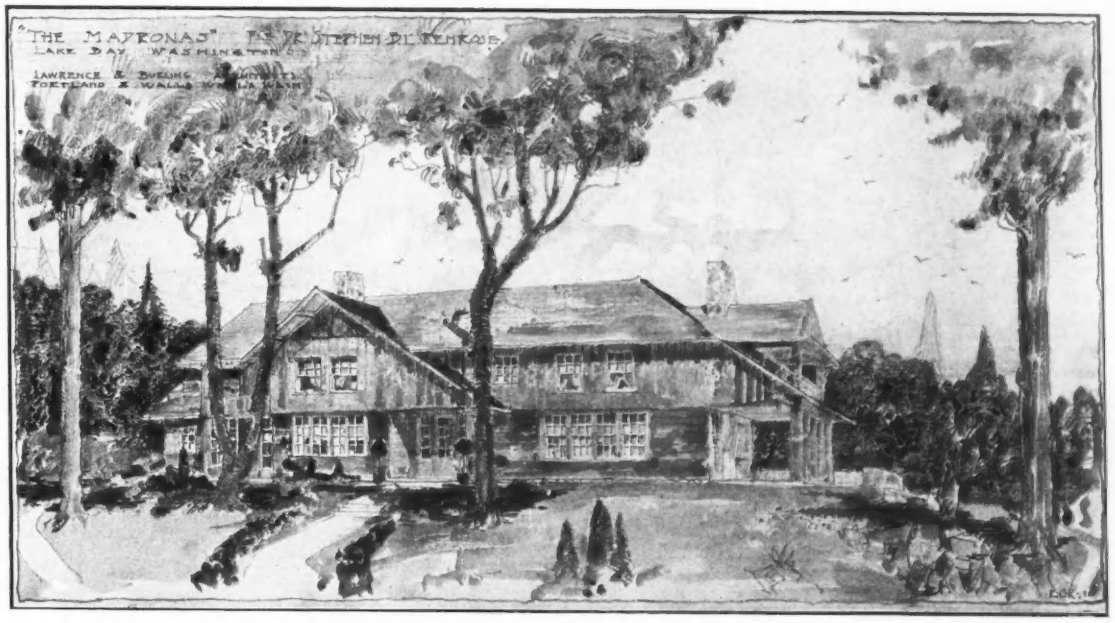


Westminster Presbyterian Church, Portland, Oregon
Ellis F. Lawrence, Architect

PACIFIC COAST ARCHITECT
APRIL, 1911



Residence, Hill Crest Drive, Portland, Oregon
Ellis F. Lawrence, Architect



Residence, Dr. Stephen B. L. Penrose, Lake Bay, Washington
Ellis F. Lawrence, Architect

Residence, Dr. Clarence Nichols, Oswego, Oregon
Ellis F. Lawrence, Architect

Residence for Mr. J. R. Bowles, Portland, Oregon
Emil Schacht & Son, Architects

Preliminary Sketch for a Portland Mansion
Birnbach & Mayer, Architects

Girderless Floor Design

(Continued from Page 10)

and that without this correct distribution, cracks may appear in the concrete, which are extremely unsightly, although not necessarily dangerous.

Several of the largest interests in the country have adopted this type of design wherever practicable in all of their recent buildings. Packingtown in Chicago is being practically rebuilt with such structures. The Quaker Oats Company is building on these lines in all parts of this country and in Canada. The John Deere Plow Company and other large houses dealing in agricultural implements use this type of construction almost exclusively. The number of buildings erected along these lines increases practically 100 per cent every year, and every indication warrants the statement that within five years flat slabs of cantilever design will be generally accepted for all fireproof buildings to which they are in any way adapted.

Duquesne Comes to Harvard

The announcement that Duquesne, former holder of the Grand Prix de Rome, has been secured by the architectural department of Harvard University is cause for congratulation. The position has been accepted as a permanent one and the already strong department has thus been augmented by some of the best talent that the old world with the most modern of new ideas can afford. The architectural department at Harvard has made strides in the past that bid fair to make it the cynosure of every other institution in the country. The engagement of Duquesne will probably be followed by other universities securing similar men for their departments. When the architectural college at the University of Minnesota gets well under way it may be possible to secure just such a man to head its endeavors. Already the Harvard architectural department under Prof. H. Langford Warren has shown rare excellence. Its qualifications for admission are placed high. College degrees must be shown before admission to the school can be obtained. This is true of all the professional colleges at this university, and as the West is taking the same course in the colleges of medicine and law, it may be wise even at this early date to look to Harvard as an example in this regard. The West may well look to her laurels in the architectural field. Unless the Western universities have similar educational riches to offer, the already increasing flow of architectural students from the West to the East may take away prestige that might be an early possibility in such institutions as we now have.

Invents Vertical Filing Device for Plans

Dean Francis C. Shenehon, of the College of Engineering at the State University, Minneapolis, has applied for a patent for a new device which he calls the arc system of vertical filing. Dean Shenehon devised the new system while a member of the engineering staff of the Great Lakes survey, where thousands of these charts are filed. When laid flat in drawers the charts are inaccessible and are in constant danger of being torn. Under the new system the charts are placed in large swede-rope envelopes and put in the filing case in vertical form. The encasements are curved slightly, so that charts and drawings stand by their own weight. It is on this curved theory the invention is founded and on which Dean Shenehon has applied for a patent.

Portland Cement Production in 1910

The Portland cement production in the United States in the year 1910, according to the preliminary estimate made by E. F. Burchard, of the United States Geological Survey, has set a new high record. His preliminary estimate is based on statistics and estimates received by the Survey from 20 per cent of the companies manufacturing Portland cement, these companies representing nearly half of the entire output of the country. From these figures he concludes that the production in 1910 was between 73,500,000 and 75,000,000 barrels, as compared with 63,508,470 barrels produced in 1909. This is an increase of 10,000,000 to 12,500,000 barrels or 15 to 20 per cent. The figures on which this estimate is based have been received from manufacturers in all parts of the United States, and are therefore considered to be representative of the country at large rather than of any single section or district. Although the average values for 1910 appear, from returns received thus far, to have been slightly higher than in 1909, prices were far from satisfactory, especially to the large manufacturers in the Lehigh Valley district and in certain of the Eastern States. The year 1911 opens with prices cut 5 to 10 cents a barrel lower than those prevailing in 1910. The construction of several new plants has been pushed during the year, and several plants that were under construction in 1909 became producers in 1910, so that the kiln capacity remains far in advance of the demand.

Ten Best Buildings Named; All are in the East, Say Architects in Voting Contest

Which are the ten most beautiful buildings in the United States? A great voting contest in the East, of architects and architectural students, gave this list: The Capitol and the Congressional Library in Washington; the Public Library and Trinity Church in Boston; Columbia Library, Trinity Church, St. Patrick's Cathedral, the City Hall and Madison Square Garden, in New York, and the Vanderbilt residence, Biltmore, in North Carolina.

All of these buildings are in the East. Three of them are libraries and three are churches. One capitol, one city hall, one place of amusement and one residence complete the list. Not a single State capitol or theater or gallery of art or monumental museum has a place.

It is hardly likely that the vote taken in the contest was fully representative of the country, says the *American Carpenter and Builder*. It is an Eastern judgment, expressed by architects, and the favor appears to have run to grandiose rather than to beautiful buildings. A Western vote or a vote of artists or of amateurs would doubtless have given a different verdict in several cases.

Bombay and Calcutta, according to a dispatch from the latter city, are about to be rebuilt on a colossal scale by the British Colonial Government, in order to rid those ancient communities of the danger from plague which for years has proven such a menace to civilization. The scheme of improvements includes miles of new roads to run through the congested districts and the establishing of parks and up-to-date tenement houses. Trolley lines are also to be built and sewers and other sanitary advantages as well are to be provided. The cost of rebuilding the two cities will be approximately $53,000,000, or about $26,000,000 in either case.

Damp-Proofing

BY R. A. ELDRIDGE.

Not many years have passed since owners who were erecting brick or concrete buildings considered the matter of damp-proofing the walls of these buildings as unnecessary expense. Great strides have been made in building in the last few years, and architects and contractors have given much thought to ways of improving the usefulness of buildings, the need of damp-proofing, especially in a country where there is so much moisture at certain seasons of the year, is being emphasized more and more as the number of brick and concrete structures increase. Many different methods of accomplishing this have been tried. After much experimenting, some of it very costly, as is usual in such cases, it has been found that the best result is obtained by applying a liquid coating directly to the walls of the building either on the inside or outside. As it is often difficult to apply this to the outside walls, it has become the general practice to apply it on the inside, and from the standpoint of economy this will be shown later to be the proper place to apply it. When properly prepared this liquid will remain "tacky" and plaster can be applied directly to it and will hold without the aid of "furring." This, of course, is optional with the builder, and if desired, lath can be nailed over it and the plaster applied as usual, but this is an unnecessary expense.

The first question brought up by the prospective builder is naturally the one of expense. At first glance, and without going into the matter thoroughly, it may appear that the cost of properly damp-proofing a building would be a large item. That this is a mistake can be readily seen after a few minutes work with a pencil. Then again the item of initial cost is not the only thing to consider, as the question of repairs is a point that should have careful attention in figuring cost. We thus see that there are two questions which should be considered, and we will first take up the initial cost. As stated above, the best damp-proofing comes in the form of a liquid of about the consistency of ordinary paint, and this is applied directly on the walls. This paint can be purchased at a moderate price per gallon, and can be applied to the walls by any ordinary workman. Rough surfaces will, of course, require more paint than smooth ones, but the average cost of damp-proofing will run from 12 cents to 15 cents per square yard. To offset this expense we can save the cost of "furring," as the plaster can be applied directly on the liquid, where it will be held in place as satisfactorily as if lath were used.

We now come to the question of repairs and other damage. All bricks are more or less porous and will absorb water readily, and cement will act the same way, no matter how it is treated. When water enters the walls of a building it will naturally follow the course of least resistance, and as more water is being absorbed from the outside this would naturally be towards the inside wall. It will make itself visible in various ways, sometimes in water stains showing through the plaster, and again by causing the plaster in certain parts of the rooms to fall off entirely. The writer had occasion recently to see an extreme case of this kind in a modern flat building where the owner had thought damp-proofing unnecessary. In the rooms on the more exposed sides of the building, the water had seeped through the bricks, which in this case were covered by a coating of cement and plaster, and had caused the interior plaster to peel off in large patches in every room. In the rooms occupying the less exposed part of the building, the water had seeped through in the form of stains, which had ruined the tinting in almost every room. As a natural consequence, the tenants occupying the rooms where the plaster had peeled, had moved, after collecting from the landlord for rugs, furniture, etc., damaged by the falling plaster and the rooms were still empty. At considerable expense the walls were damp-proofed, and the rooms put in shape again, whereas if this had been properly done in the beginning there would have been no trouble, and the expense would have been only about one-half what it finally amounted to. I feel sure that almost every architect of experience has seen cases very similar, and which would never have happened if damp-proofing had been used.

Another feature in favor of damp-proofing, and one which as a rule is not given much consideration, is the protection it affords from vermin which is almost always found where a building has not been damp-proofed. As the interior plaster is applied directly on the damp-proofing without the use of lath, one can readily see there is no room for the "undesirable citizens" that generally make this part of a building their rendezvous. Small insects can not bore through this layer of damp-proofing, for when properly prepared it is deadly poison to them. The liquid should also be alkali and acid proof.

So far we have spoken only of damp-proofing the walls above the foundation, and we will now take up water-proofing the foundation of the building. This is accomplished by a different method altogether, as below the ground there is always a certain amount of water pressure to contend with.

For a great many years it was the custom to use layers of felt mopped with asphaltum for this purpose, and this is still done to some extent. The main objection to this system is the liability of the paper to tear if the concrete should expand or settle. If this takes place and the felt is torn even a little, a leak is sure to follow, and it is very hard to locate the exact position of this leak. The water may seep through the torn felt and follow along until it reaches a weak place in the cement and then break through, several feet from where the leak really is. For this reason it is often found necessary to again water-proof a large part of the basement to be sure the leak is covered securely. The system which is recommended now by most of the leading architects and one that is largely followed where known, is not only less expensive, but does away with any such trouble. A specially prepared water-proof pitch is used, which is treated with the view of making it very elastic. This is melted to a liquid consistency and applied direct to the walls and floor with a brush, but a much heavier coat is applied than in the case of the damp-proof paint. Where a heavy pressure has to be met this coat should be at least one-fourth of an inch thick, and where only a small pressure is found it need only be applied about one-eighth of an inch thick. Directly over this coat there is applied a facing coat of cement from one-half to one inch in thickness, depending on the pressure. The pitch will form a binder with this cement and hold it firmly in place, and being made very elastic will expand or settle with the foundation, making a leak almost impossible where it has been properly applied. If the foundation walls are easily accessible from the outside it is sometimes advisa-

ble to cover these walls with a heavy coat of damp-proof paint, also; however, this is not essential, but will give additional protection. This same water-proof pitch can be used for making stable floors or for insulating cold storage plants. As the pitch is made acid and alkali proof its use is very effective in stable floors. In swimming pools, it is applied the same as on foundation walls, and if desired the facing coat of cement can be covered with tiling to add to the beauty of the pool.

Looked at from the standpoint of initial cost, it will be seen that damp-proofing is not any more expensive than the other construction necessary where it is not used, and viewed from the cost of repairs and damage that may follow where it is not used it is found that the cheapest and best way to erect a building is to use damp-proofing. Incidentally, the feeling of personal satisfaction in knowing that your building is absolutely water and vermin proof, while not measured in dollars and cents is something worth considering.

Portland Architectural Club

At the meeting of the Portland Architectural Club, Tuesday evening, March 7th, Mr. Lazarus gave a very interesting talk on his recent trip through Europe. A number of slides were shown illustrating the various points of interest which he visited.

The club is looking for new quarters. Room with good light is needed for the Atelier and also a library and lounging room. If such quarters can be found the club will decorate them and install comfortable furnishings.

A committee from the club is acting with committees from various contractors' organizations relative to the establishment of a builders' exchange.

The Atelier is still at work, eight men having sent in the last esquisse, which was a "Town Hall" for the Class B project and a "Peristyle with Porch and Portico" for the Class B analytic. The mentions for the last competition follows:

Judgment of February 20, 1911.

Archæology.

Stanley Flawn, mention. S. F. A. C. Atelier Brown.

Plan Problem.

Michelson. S. F. A. C. Atelier Brown.
Joe S. Gould. S. F. A. C. Atelier Brown.
C. I. Harrison, mention. S. F. A. C. Atelier Brown.
Carl I. Warnecks, mention. S. F. A. C. Atelier Brown.
W. G. Hathaway. Portland A. C.
Louis C. Rosenberg. Portland A. C.
T. Bearwald, mention. S. F. A. C. Atelier Kelham.
J. W. Bagley, mention. S. F. A. C. Atelier Kelham.
Thos. Bendell. S. F. A. C. Atelier Kelham.

Order Problem.

Geo. Williams. Atelier Hays.
Frank Bastain, mention. Atelier Hays.
Wm. J. Wilkinson. Atelier Hays.
Edwin E. Merrill. Portland A. C.
Chas. K. Green, mention. Portland A. C.
Barton E. Brooks, mention. Portland A. C.
Russell E. Collins. Portland A. C.
Angelo Hewetson, mention. S. F. A. C. Atelier Brown.
Schroeder, mention. S. F. A. C. Atelier Brown.
Stanley C. Flawn, mention. S. F. A. C. Atelier Brown.
Albert R. Williams, mention. S. F. A. C. Atelier Brown.
Guy L. Brown, mention. S. F. A. C. Atelier Brown.
H. C. White, mention. S. F. A. C. Atelier Brown.
Fred M. Kramer. S. F. A. C. Atelier Brown.
Wm. J. Helm, mention. S. F. A. C. Atelier Brown.
S. D. Willard, mention. S. F. A. C. Atelier Brown.
J. A. Davis. S. F. A. C. Atelier Brown.
Thos. J. Kent. S. F. A. C. Atelier Brown.
Carl R. Schmitts. S. F. A. C. Atelier Kelham.
H. C. McAfee, mention. S. F. A. C. Atelier Kelham.
Albert H. Larsen, mention. S. F. A. C. Atelier Kelham.
D. J. Dallas. S. F. A. C. Atelier Kelham.
M. W. Morrison. S. F. A. C. Atelier Kelham.
Anthony Hortsman. S. F. A. C. Atelier Kelham.
Bert Badgley. S. F. A. C. Atelier Kelham.
Phil De Louchant, mention. Schadler, Reno.

Trade Notes

The Western Building Material Co. are furnishing 200 carloads of cement for the Multnomah Hotel and John Deere buildings.

J. P. Junkin, Western manager of the architectural department of Pratt & Lambert, with headquarters in Chicago, recently made an extended trip of the Pacific Coast cities.

L. A. Spear, general manager of the Washington Brick, Lime and Sewer Pipe Co., spent a few days in the city recently on his way to Southern California.

F. W. Eastman, Far West Clay Co., of Tacoma, recently visited the trade in this city.

Fred C. Cook, Pacific Coast representative of the Kawneer Manufactuirng Co., has returned from an extended trip through the Northwest.

The Pacific Face Brick Co. is furnishing a plastic red brick for R. F. Wassel & Co., who are building an apartment house at Twentieth and Kearney. The brick is a new product of the company and is sure to become popular through its handsome appearance. Another new building in which the brick has been used was erected by Eastman & Co. at Twenty-fifth and East Market.

Victor S. Persons, of the Concrete Steel Product Co., has returned from a short trip to Spokane.

The P. L. Cherry Co. have delivered the paving brick to the Leonard Construction Co. for use in the John Deere Warehouse. The brick arrived in first-class condition and will prove noticeable when put in place.

The Sterling Stone Co., of Portland, is a new corporation. The company was organized for the purpose of manufacturing art stone. H. J. Cress, E. D. Timms and Mr. Burras are the incorporators. The company has already signed several contracts for the delivery of their stone, and a modern, fully equipped factory is now in operation at the corner of East Tenth and Stephens streets.

The Washington Brick, Lime and Sewer Pipe Co. will furnish the brick and terra cotta for the Masonic Temple at North Yakima, Wash.

The Northwest Bridge Works has started actual work on the Masonic Temple at North Yakima.

E. E. Gilmer, well known to the local building trade, is now connected with Timms, Cress & Co.

H. A. Noble, of the Concrete Steel Products Co., left recently for a short visit to his home in Ann Arbor, Mich. Mr. Noble was married on the 22d inst. to a young lady of Kansas City. (Mr. Noble refuses to give us the name of the young lady.) The wedding tour will include an extended trip through Southern California before returning to Portland.

An addition to the city's manufacturing interests is the plant of the Durable Roofing Manufacturing Co. at Kenton. The plant will employ about twenty-five men and will manufacture roofing of felt saturated in asphalt. Dr. J. R. Wetherbee is the president.

(Continued on Page 37)

What Our Canadian Neighbors Think of Reciprocity

From February Issue of Construction, published at Toronto, Ontario

Despite the clamor of a party ridden press in support of the proposed reciprocity pact now before Parliament, a careful dissection of the long list of proposed changes in the Canadian schedules, makes it evident to every broad-minded Canadian, whose judgment is free from political prejudice, that the Government has been made a "cats-paw" of by a United States Government that is madly grabbing at "a straw" in an effort to preserve its very existence. With all due deference to the Hon. Mr. Fielding, and with all reasonable consideration for his ability as Canada's Minister of Finance, it is plain that the proposal he has asked the Canadian Parliament to accept is one arranged and intended as a political trick to secure votes rather than an equitable tariff arrangement designed to promote the National and industrial welfare of Canada.

The proposed changes, so far as they affect building materials, are but few and not highly important. However, in most cases they serve to give an increased advantage to the dumped products of the highly organized and specialized manufacturers of the United States.

There are six lines of products affected by the proposed reductions. Cement is reduced 5½ cents per barrel; freestone, granite, limestone, sandstone, etc., 7½ per cent; roofing slate, 20 cents per hundred square feet; vitrified paving brick, not ornamented, 5 per cent; manufactured asbestos, 2½ per cent; plumbing fixtures, 2½ per cent.

The reduction of 5½ cents per barrel on Portland cement, on the face of it, does not appear to be a very disastrous change as far as the Canadian cement manufacturer is concerned. But when the very unsatisfactory and unsteady conditions of cement prices that prevailed up to a year ago brought about by the ruinous conditions imposed by the dumping of the surplus products of large United States mills are taken into consideration, it can readily be seen that any change that may tend to give the United States manufacturer a further advantage in the Canadian market can not be viewed with favor by the cement manufacturers in Canada.

The cement mills operating in the United States today have an aggregate capacity considerably in excess of the country's consumption, due principally to the rapidly increasing popularity of concrete as a structural material. As a result of this much advertised fact, a large number of cement projects have been promoted and many large plants have been erected and placed in operation during the past few years. The outcome was inevitable. The total capacity of the mills grew more rapidly than the consumption increased. Cement is one of the commodities that the United States can not export except to Canada, and if it were not that we maintain a reasonably fair tariff on cement the American mills would dump their over-production at times when, because of building conditions in the United States, the consumption would fall below normal, thereby crippling the cement industry in Canada, temporarily, if not permanently ruining it.

Again, it must be remembered that the Canadian cement manufacturer has several other conditions to contend with that operate in favor of his American competitor. Coal, which is one of the largest items of expense in the production of cement, costs from 20 to 25 per cent more than it does at the American mills. Labor costs from 30 to 35 per cent more in Canada and our freight rates here are, in some instances, more than double those generally prevalent in the United States. Conditions in the Canadian West are still worse. The cost of the production of cement there is more than double that in our Eastern mills.

So it may be seen that this very important industry, which up to a year ago was almost hopelessly demoralized, has every reason to protest against any further reduction in the tariff on cement. While it is right and proper that cement, a material that of recent years has entered so largely into all kinds of construction work, should and must be supplied at a reasonable and fair price, conditions must not be created whereby the periodical dumping of foreign mills during times of depression is permitted to demoralize the industry in Canada.

The reduction of 7½ per cent on granite does not seem to be either necessary or expedient. Our granite quarries in Quebec are producing some of the finest stone quarried in America, and the reason for this change is not evident.

The reduction on roofing slates and vitrified bricks will affect considerably our existing British preference and will have a tendency to give the United States a stronger hold on this market.

The reduction of 2½ per cent on asbestos products sounds ridiculous. Canada produces 95 per cent of the commercial asbestos in the world. All the raw asbestos used by United States comes from our Canadian mines. It is manufactured there and returned to us. Until recently practically every article in the manufacture of which asbestos entered was imported from the United States. A large new plant is in operation now in Montreal and Mr. Fielding proposes to reduce the duty 2½ per cent.

The reduction of 2½ per cent on plumbing fixtures will simply open a little wider the Canadian market to the operations of the "bath tub" trust of the United States, the methods of which the United States Federal Courts now have under investigation.

A portable theater, offering the advantages and comforts of a modern playhouse, is a new feature in the French theatrical world, which will start on a journey through France in the early part of April. This unique "Thespian chariot," as it is termed, is the outcome of an idea conceived in the mind of M. Gemier, director of the Theater Antoine, Paris, to give the less populous and secondary cities an opportunity to enjoy a higher and more consistently staged class of attraction than those to which they are usually accustomed. The theater is built on the principle of the balloon shed, and it will be hauled in vans drawn by eight road locomotives. Though portable, everything necessary to a first-class theater will be incorporated in its make-up, including properties, stage, and what is more essential from a box office standpoint—an auditorium that will seat an audience of 1500. It will also carry its own lighting and heating system, together with a fire-extinguishing plant, consisting of an electric rotary engine, and a tank on wheels which will be filled before each performance. The company will comprise twenty players, an orchestra, and forty carpenters and stage hands.

Address of E. M. Lazarus Before Portland Architectural Club

Mr. President and Gentlemen or, rather, Chere Colleagues:

I thank you for the honor of calling on me for a traveler's tale, and were I skilled in the art of oratory or could command Dickens' gift of telling a tale, I should feel more at ease in the limelight of this platform. As it is, you will have to make amends accordingly. Speaking of Dickens, I have brought with me tonight a rebound edition of David Copperfield, which I picked up in London and which was published in the original pamphlet form with illustrations in color by Barnard, which I am sure will interest you.

Sailing from New York late in May last, I crossed over with a fellow Oregonian, Homer Davenport, whose love of Oregon, and Silverton in particular, has been instrumental in heralding its fame from the land of where rolls the Oregon to the Bedouin tribes in far Arabia. For where his cartoons are known and admired, so is his love for his home town. Davenport's versatility is remarkable. In mid-ocean he invariably spent two or more hours every day making cartoons in the salon, and on a certain eventful day lost his purse containing all his available cash. A few hours later, on hunting him up, I found him finishing a pen and ink sketch in which he was the central figure with beads of perspiration dropping from his brow, the captain standing at his side gesticulating his inability to account for his loss, and with the salon steward standing by with an expression vacant as atmosphere eyeing the flight of the purse, to which Davenport had affixed a pair of wings, as it vanished in the distance; a cartoon that was afterwards auctioned off at the end of the voyage for the Seaman's Mission for a good round sum.

Davenport and I were determined to go to Epsom Downs to see the Derby run, where a vast concourse of approximately 260,000 persons had assembled to see the race. We reached London at 3 o'clock on the morning of the race, and were up at 8 o'clock hunting for seats on a coach bound for Epsom Downs. The journey to the track and the track itself was a sight never to be forgotten. The endless string of vehicles on the high road to the course, the costers and their diminutive donkeys and carts, with their wives and sweethearts mingling with the more pretentious equipages, enlivening the time with passages of their Cockney wit with their fellow travelers was a great sight, as was the gamins of the gutter, turning handsprings from mile end to mile end to the old refrain:

> The Epsom races have begun,
> Now is the time to have some fun;
> Throw out your mouldy coppers—

and throw them out we did, with a vengeance.

Reverting now to the architecture of England: From the time it was under the protecting arm of Rome, to the Norman period (which, parenthetically, was founded largely on the Southern Romanesque), through the Gothic period, and down to the Tudor, nothing impressed me so much as the simple, quiet Tudor homes, substantially built of brick and stone, set among lovely rural surroundings, with walls, terraces and walks which one is apt to associate with the renaissance of Italy and all the lovely and charming accessories which go to make the perfect country seat. With ideal roads over which to motor, a trip through suburban England is most enjoyable, especially as the experiences of travel are yearly growing rarer, as the facilities for transport are improved.

When one can journey—the word is used advisedly—in forty or fifty hours across two seas and through three kingdoms arriving to all intents unaltered, one can appreciate the true delights of getting away from Cook's itineraries, where a passenger is merely a human bale, bundled into denationalized, localized and Swissified hotels.

When one speaks of the architecture of London, one refers to the Italian renaissance apparent in the works of Inago Jones and Sir Christopher Wren. At the town planning conference held in London in October last, at which I was in attendance, I had an opportunity of studying Sir Christopher Wren's splendid scheme for re-planning London after the great fire, which, had it been accepted, the loss of millions since spent in fragmentary improvements might have been avoided. Unfortunately, the average Englishman is not an imaginative person; and, further, the economical pressure of the rate-payer (tax-payer we call him) on the local authorities, and the strength of vested interests, has always upset any far-reaching scheme for civic improvement. They can no more Hausemanize cities in England than they can here in America, for such a course is only possible where autocratic powers exist.

Mr. John Burns, who welcomed the delegates to the Town Planning Conference in behalf of his Majesty's government, spoke truly when he said he did think that it dawned sufficiently upon people in general the effect of structural environment—good buildings and pleasant homes—upon the character, temperament, disposition and energy of the people. Cities are not mere structures of brick and stone, nor centers only for commerce and trade. They are places where utility, comfort and beauty could be and ought to be combined so that those who visited them, or passed through them, could have their artistic senses awakened and cultivated.

I visited the much advertised "Garden City"—Letchworth—as it is planned eventually to take care of 35,000 inhabitants; it had a scattered, unattractive appearance and lacked in dignity.

On the continent Germany leads the world in town planning. City planning is Germany's greatest contribution to civilization and Germany has discovered that it pays in money dividends, in health, in happiness and well-being to build cities properly, for they are firm believers over there that mean streets breed mean men. The half timber work in Southern Germany has an equal, if not a greater charm to me than its English prototype.

Holland, with its flat landscape, its quaint houses and still quainter people, was irresistibly fascinating. As much as I would love to linger in this country and talk of its wonderful galleries and its God-gifted painters, I must go on, for art is long—time is short.

Belgium, with its fields cultivated up to the last square inch, with cows picketed instead of grazing at large, is full of architectural charm.

Now I will take you on a motor trip from Grenoble to Chamberey—to Aix-les-Bains, to the Convent of the Grand Chartreuse—Bourg St. Maurice, to the top of Petit St. Bernard, to the Hospice on the top of this mountain which is 3257 meters above the sea level, to the foot of Mt. Blanc, then through the Italian valley to Aosta, where one sees the Arch of Augustus, erected in the year 23 B. C.,

the ancient Roman theater, constructed about the same period, and other Roman ruins of great interest.

This trip is famous as being one of the greatest scenic motor trips in the world, and is also noted for the infamous treatment that motorists are subjected to by the Swiss and the Italians.

I was making this trip with a Mr. James, of New York, and we arranged through the United States Consul at Grenoble for a machine and chaffeur to take us from Grenoble to Aosta for the stipulated sum of 625 francs. After several breakdowns in the forenoon of the first day, we finally reached the Italian frontier a day behind our schedule. On reaching the Italian frontier they demanded 635 francs in gold for the return of the machine to French territory and at the Douane or custom house they insisted that this payment be made in gold, refusing to accept their own or French paper. Protesting that we did not have the amount of gold demanded, we were finally conducted to a dwelling back of the custom's house kept by three old women, who exchanged the paper into yellow metal on the payment of $18 exchange, and we went on our way *rejoicing*—for want of a better word.

Returning to this country, I attended the American Civic Association convention in Washington, where Thomas Nelson Page, the famous Southern author, launched forth into a scathing arraignment of American art with Statuary Hall in the Capitol as a target for his verbal darts.

"Art may be called a luxury, and is a luxury in the United States, for we have made it so. There is no country on earth where the poor are so shut out from the uplifting contact with art as in America. Our government, that is, the people of the United States through our representatives, have barred the door against Art and have refused to let it in." And he further went on to state that he wanted "Art made as free as air, for it is in an atmosphere charged with Art that Art flourishes."

Speaking of the part of the capitol at Washington known as Statuary Hall, he went on to say that even the most patriotic sentiment by the most devoted American can not view that collection without a shudder at the grotesqueness of that group of men who, it may well be said, have deserved better at the hands of their countrymen.

That some are good, and that one or two are even fine may well be admitted, but jumbled together as they are in every form and fashion of modern dress, of every size from pigmies to giants, they present together a terrifying spectacle of what the best in this country is able to achieve.

However, Mr. Page's criticism may be justly applied to art in this particular connection, it is not to be denied that the best architecture of the best men in this country today leads the world in meritorious design.

In modern European work, aside from the art Nouveau of France and Germany, one sees a resurrection of dead classical bones, with little understanding of the application of classic principles; merely, in fact, a stringing together of classic details, but in the best work in New York and adjacent cities classic art is as alive today as it ever was.

Leaving Washington, I recrossed this continent with the delegates in their special train to the convention of the American Institute of Architects, held in San Francisco in January last. A jollier crowd I have never met and a more enjoyable time I have never experienced. You are all conversant with the transactions of the institute at the recent convention, so I will not tire you with a repetition.

I am afraid, gentlemen, that I have encroached too much on your good nature as it is. I have to thank you for your presence, and wish you good night.

OUR ILLUSTRATIONS

Westminster Presbyterian Church

The new Westminster Presbyterian Church, designed by Ellis F. Lawrence, will occupy the Irvington block, bounded by East Fifteenth, East Sixteenth, Schuyler and Hancock streets. Its estimated cost, including that of the Sunday School building, which will be in the form of a wing to the main building is $80,000. The building will probably be a stone structure, although brick may be substituted.

The style is English Gothic and is suggested by the village church type in England. The auditorium proper will seat 1000 people, the Sunday School 850, and the social room in the basement 650.

The Sunday School wing is relieved by the second story in half timber work, which should make an agreeable and pleasing contrast with the simple stone surfaces of the church proper.

The plan of the main building shows a cruciform with nave and transepts, the crossing marked by a lantern tower which in outward appearance centers on the lot and dominates the composition from all approaches.

Interior decoration will be Gothic in character. The roof trusses will show and the entire ceiling is to be done in native wood. In the transepts, lanterns and naves the windows are to be done in stained glass.

The organ, which is to be one of the principal decorative features of the auditorium, will be placed directly back of the chancel.

In addition to the auditorium and Sunday School room provision is made for a pastor's study, choir room, infants' room, kitchen and twenty class rooms.

Multnomah Amateur Athletic Club

The new Multnomah Amateur Athletic Club building, of which Whitehouse & Fouilhoux are the architects, will be located at the south end of the field along Salmon street. It will be five stories in height on the north or field side and three stories high on the Salmon street side.

The design of the exterior will be cement plaster, finished with a warm gray color. The belt courses, architraves, balustrades and other trimmings of the exterior are to be treated in a warm, cream white color. The character of the design is a simple treatment for a cement exterior followed along the general lines of the Italian architecture.

The interior in design, will be simple, straightforward work. The main feature for the interior design will be on the first floor, namely, the main hall, lounging room and reading room. These rooms will be more elaborate in finish than the remainder of the building, yet at the same time the scheme will be quiet and not "gaudy." The idea is to give an harmonious, dignified appearance and keep the rooms above mentioned as a man's club, and yet at the same time have them pleasing to all eyes.

The sub-sub-basement contains a boiler room 46x36, boilers, boiler feed pumps, pool water heater, also a generating set for electric lighting.

The sub-basement will contain a fan room that will distribute pure air throughout the locker rooms, billiard, card, lounging and writing rooms, main hall, handball, squash and racket courts.

The athletic department contains one locker room for members and one locker room for visiting teams, a rub room, a dry room, a toilet and shower room.

The Turkish bath department has two hot rooms, the first one to be heated at 140 F., the second one at 190 F. It also has a steam room and plunge 12x15 feet, showers and rub tables. A waiting room, a large bed room, toilet and large linen closet are provided in this department.

The basement is largely occupied as a locker room. The seniors' locker room can accommodate 1000 lockers; the ladies' room will accommodate 316 single or 600 double lockers and the juniors' room has accommodation for 477 single lockers. Just west of the lockers on the lower floor level is the location of the swimming tank, which will be 30x75 feet, and will vary in depth from four feet at its shallowest part to eleven feet at the diving end. The sides and floor of the tank will be lined with glazed tile, with provisions for the illumination of the bottom with electric lights on special occasions. Steps extend into the water at the shallow end and two brass ladders are recessed in the sides of the tank at the diving end.

A gallery extends around three sides of the room and ample light is provided by six very large windows on the south side of the building. The swimming instructor has quarters on this floor, and there are also shower bath rooms, a steam room, and the ladies' locker room connected to the swimming tank through a dressing room and a special shower room.

At the east end of the main portion of the building on this floor is the location of the bowling alley, which occupies 32x100 feet, including the space set apart for the spectators. On this floor are also located men's toilet, tub bath room, towel room, store rooms, etc. This floor has direct access to the field through an open loggia.

On the main floor, which is on a level with Salmon street, is a hall of large proportions, its dimensions being 21x88 feet. Opening from the hall to the east is a cloak room, and west of the entrance is the main office, in which is a built-in concrete vault. Directly north of the main entrance is the lounging room, 43x50 feet, with light ceiling and five wide openings to a glazed porch just off the main terrace. Opening from this room is the writing room and the card room. Along the side of the wall separating the hall from the lounging room will be large glass cases built in between the archways to hold the medals and trophies won by the club members. These can be seen from both the hall and the lounging room.

The reading room is 35x45 feet, and is at the west end of the hall. At the east end of the main hall is the billiard and pool room, which is large enough to accommodate twelve tables.

The separate rooms are also provided for the directors' room, committee room and private office. Running along the entire field side of the building and returning partly on the east and west sides, is a wide, concrete porch with concrete and wood rails.

On the second floor is the gymnasium, 65x95 feet in dimensions, with adjoining rooms for the instructors; the boxing and wrestling rooms on either side of the gymnasium are 25x35 feet. On the second floor are fourteen bed rooms, equipped with electric lights and running water in each room. Every room will have a separate clothes closet; toilet rooms with shower baths are provided on this floor.

The third floor will be occupied by the upper part of the gymnasium, there being a running track at this level, as well as a spectators' gallery. There will be two storage rooms on this floor for gymnasium apparatus, seats, etc.

The balance of the floor is occupied by 24 bed rooms, the arrangement being similar to the bed room space on the second floor.

The attic will be occupied by a fan with a battery of heating coils for ventilating of the gymnasium and the wrestling and boxing rooms.

There will be two handball courts located in a wing at the east side of the building. The courts will be 53x77 feet and contain space for spectators' gallery. A large portion of the roof over these courts will be of glass, insuring a quantity of light.

There will be four squash courts, 35x75 feet, at the west side of the main building. They will be reached from the main building through a passage and have direct connection from the outside. These courts will also be flooded with plenty of light by means of sky-lights.

On each floor there will be placed drinking fountains, slop sinks, and ample fire protection will be afforded by hose racks at each end of the building. There will not be less than seven ways of egress from the main part of the building on the second or gymnasium floor, and the other floors are equally well provided for.

Provision has been made so that the outline of the entire building can be silhouetted on special occasions by means of electric lights, and the same provision has been made for illuminating the terrace and stairways.

Trade Notes—Continued

W. J. Wood, marine architect of Chicago, appointed by the City Executive Board to prepare the plans and superintend the construction of the new steel fireboat, arrived in Portland recently. Mr. Wood designed boats for Milwaukee, Chicago, Buffalo and other large cities, and in each instance it is said they have proved successful.

C. A. Wolfgang has incorporated the Coast Supply Co. and is doing business at 310 Railway Exchange building. They have secured the local agency for the well known line of the Berger Manufacturing Co.

The terra cotta for the John Deere and White buildings to be furnished by the Washington Brick, Lime and Sewer Pipe Co. has arrived.

The L. A. Norris Co., of San Francisco, has opened a local office at 320 Worcester building. A. L. Wilcox is in charge.

The Pacific Face Brick Co. are furnishing their dry pressed gray for the Pallay apartments erected at the corner of Twenty-second and Glisan streets, also the tan and buff plastic brick for the apartment building of Morgan, Feidler & Boyce, being erected on Ford, near Washington.

The Washington Interior Decorating Co., of Seattle, who had the contract for the interior woodwork of the new county courthouse, defaulted on their contract and later went into bankruptcy. The contract price was $8900. It is said that the bonding company has refused to make good.

The February issue of *Suburban Life* contains a glowing description of Seattle under the head of "Seattle, the City of Progress." The article was written by Frank A. Arnold, secretary of the publication, following a visit to the Pacific Coast last fall.

The Bass-Heuter Paint Co. are distributors of "Interio," a wall finish, which is being used in the Savoy, Sorento and Monte Cristo hotels of Seattle; the new depot of the Oregon-Washington Railroad & Navigation Co. at Seattle; Portland Hotel, Board of Trade, and many apartment houses and residences. C. A. Finn is general representative.

Building News of the Month

Bonds to the amount of $700,000 will be voted to cover the cost of the erection of a new high school for South Tacoma and to take care of several additions to other schools of the city.

Plans are being figured for a new schoolhouse to be erected at Stanfield, Ore.

The Douglas County Court has purchased $8000 worth of road building machinery including two complete rock-crushing plants, sixteen graders, thirty-one Fresno scrapers, twenty-three slip scrapers, twelve road plows and four road rooters.

The foundations for the new high school building being erected at Spokane have been completed. M. C. Murphy is the general contractor.

Pacific Telephone and Telegraph Co. will spend nearly $1,000,000 the current year. This amount includes the cost of a handsome new building to be erected on the West Side.

Eugene, Ore., will vote on the proposition to bond the city $28,000 for the completion of their sewer system.

Dr. J. W. Morrow has purchased three lots in Laurelhurst and will erect a $10,000 residence on them.

Architects Kroner and Henn have let the contract for the altering of the Yamhill County courthouse to Welch & Wright.

Architects Troutman and Leather, of Aberdeen, Wash., are preparing plans for the erection of a new high school, which will be modern in every respect.

Prescott, Wash., will begin the erection of a modern brick and stone two-story school building to be built at a cost of $35,000. The building will contain a gymnasium in the basement, and auditorium on the second floor, and eight class rooms.

Kennewick, Wash., voted bonds to the extent of $60,000 on February 28th for the erection of a new high school building.

The Sisters of Mercy have purchased a half block on Third street, between Multnomah and Hassalo, and will erect a home for girls in the future.

Plans have been prepared for the erection of a $16,000 bungalow on the fruit ranch of Austin Corbin in the Rogue River Valley district.

Architects Williams and Rasmussen are preparing plans for the erection of a theater building at St. Johns for Buckner Bros.

Plans are being prepared for the erection of a $15,000 home for Robert Brooke to be built on East Fifty-fifth, near Salmon street.

F. F. Haradon has purchased a quarter block on East Davis and will erect a three-story brick building for the use of a wholesale grocery house.

Edward O'Shea is having plans prepared for the erection of a business block to be erected on Hamilton street, Spokane, at an estimated cost of $60,000.

Contracts have been let for the rearrangement of the ground floor of the Bowers Hotel at a cost of $5000.

Plans are being prepared for the erection of a new school house at Union at a cost of $50,000 to $60,000.

Architects Preusse and Zittell, of Spokane, are preparing plans for the new City Hall to be erected there.

Work has begun on the construction of the eighteen-story Hodge building to be erected on the corner of Second avenue and Cherry street. It will be built on the site of the first brick building erected in Seattle following the fire of 1889. The plans of the architects, Bebb and Mendel, call for a reinforced concrete steel and a combination of brick and terra cotta for the front. The building will be entirely fireproof construction, cost $600,000 and is being erected by the Union Savings and Trust Co.

The Commissioners of Klatsop County, Washington, will arrange for a bond issue to cover the cost of building a macadamized road from Colby to Clifton.

W. H. Maxwell, of Great Falls, Mont., was the lowest bidder for the construction of the public building at North Yakima, Wash., The bid was $178,774.

Contracts will soon be let for the construction of the San Francisco Polytechnic High School, which will be one of the best equipped schools of its kind in the world. The plans were designed by Alfred I. Coffey, city architect, under the supervision of A. Lacy Worsewick, in charge of all school work, and call for a reinforced concrete, steel, brick and terra cotta building. The structure will be purely classic with a leaning toward French Renaissance. It will be erected on Frederick street, between Willard and First, and the estimated cost is $600,000.

William Reidt will shortly begin the erection of a $30,000 garage on Kearney street. The building will be three stories and will be built of concrete.

A hotel containing 1600 rooms and 1000 baths is to be erected in New York City on a site bounded by Broadway and Sixth avenue, Thirty-third and Thirty-fourth streets. The accommodations to be provided will be considerably in excess of anything now offered by present existing world-famed hostelries. The structure is to be known as the Greely Square Hotel, and will be built at an outlay of $14,000,000. It is to be ready for occupancy September 1st, 1912.